

Foreword

Rt. Hon. Lord Kearton of Whitchurch

Ever since Roman times Bath has been famous for its hot springs and for the treatment or alleviation of rheumatism and other medical conditions. Queen Elizabeth I placed the hot springs under the care of the Civic Authority of Bath in 1590 and from that time until its complete closure in 1977, Bath was an important medical and social centre which attained the peak of its fame in the 18th Century. In 1977, the discovery of pathogenic amoebae in the water resulted in the closure of the City's spa water bathing pools and the pipeline supplying the water for treatment purposes to the Royal Mineral Water Hospital. For the first time since the beginning of Roman occupation, the thermal springs were not in use by man.

In response to this disaster, Bath City Council mounted a geological investigation in order to restore a supply of biologically 'clean' thermal water. This work was carried out on the advice of Dr Geoffrey Kellaway with the assistance of the Wessex Water Authority and the co-operation of scientists from the British Geological Survey, the Universities of Bristol and Bath and the Hospital for Tropical Diseases in London. Much of the microbiological work was carried out in the Pathological Laboratory of the Royal United Hospital in Bath, and the other medical investigations were based on the Royal Infirmary at Bristol.

As has happened before at Bath, the loss or reduction in flow of the thermal water has prompted investigations which have revealed scientific results of great interest. Aspects of the history of science and medicine have also been revealed by the present work which has thrown much light on the possible origin of the thermal water and on comparatively youthful earth movements connected with the appearance of the hot springs.

The investigations carried out at Bath since 1977 provide an outstanding example of integrated multi-disciplinary research. The basis of the success in drilling for amoeba-free thermal water lies in the correct assessment of the geological structure, in preventing oxidations of the thermal water before its arrival at the surface and in the isolation of this supply from any oxidized water capable of sustaining the growth of *Naegleria fowleri*.

Biologically clean thermal water now issues from the fountain in the famous Pump Room at Bath and restoration of the Spa is in sight.

The City of Bath, with which I am closely associated as Chancellor of the University of Bath, has been fortunate to have a scientist of Dr Kellaway's distinction and commitment to lead this important work. I congratulate him, and all those who have been associated with this major project, in bringing it to a successful conclusion; and I also congratulate him on his initiative in promoting the symposium at the Royal Society which has resulted in this book. It is essential that the symposium's papers, from a range of disciplines, should be brought together as a permanent record and valuable source of reference. Each paper is important in itself; but so too are the connections across the disciplines so well exemplified in this book. I commend this book most warmly to the scholar and interested layman alike.